

WHAT IS CLAIMED IS:

1. A mobile type power supply, comprising  
a battery pack containing a battery and an output  
voltage conversion means that converts the output voltage  
5 of the battery according to an output voltage reference  
value; and

a connection means that is connected to both battery  
pack and a load and supplies DC power, outputted by the  
output voltage conversion means, to the load;

10 the connection means comprising an output voltage  
reference value output means that outputs an output  
voltage reference value, corresponding to the power  
supply voltage of the load, to the output voltage  
conversion means.

15 2. A mobile type power supply according to Claim 1,  
wherein

the output voltage reference value output means  
outputs an output voltage reference value, which, among  
multiple output voltage reference values, corresponds to  
20 the power supply voltage of the load, to the output  
voltage conversion means.

3. A mobile type power supply according to Claim 1,  
comprising

a fuel cell as the battery, and further comprising  
25 a power generation control means that controls the  
fuel cell, and

a connection condition detection means that detects the connection condition between the connection means and battery pack;

the power generation control means stopping power generation when disconnection between the connection means and battery pack is detected by the connection condition detection means.

4. A mobile type power supply according to Claim 3, wherein

the power generation control means comprises a valve that opens/closes the fuel passage connecting the fuel storage means that stores the fuel for the fuel cell and a power generation part that receives the fuel and generates power; and

the valve closes the fuel passage at the time when disconnection between the connection means and battery pack is detected by the connection condition detection means and also on condition that the voltage of a charge accumulation means that accumulates electric charge outputted by the power generation part is higher than a specified value.

5. A mobile type power supply according to Claim 3, comprising

a switch that, installed in the connection means, constitutes an element of the connection condition detection means and turns on/off the fuel cell.

6. A mobile type power supply according to Claim 3,  
comprising

a switch that, installed in the connection means,  
constitutes an element of the connection condition

5 detection means and turns on/off the fuel cell; wherein

the power generation control means comprises a valve  
that opens/closes the fuel passage connecting the fuel  
storage means that stores the fuel for the fuel cell and  
a power generation part that receives the fuel and

10 generates power; and

the valve closes the fuel passage at the time when  
the switch is turned off and also on condition that the  
voltage of a charge accumulation means that accumulates  
electric charge outputted by the power generation part is  
15 higher than a specified value.

7. A mobile type power supply according to Claim 1,  
comprising

a fuel cell as the battery, and further comprising

a remaining capacity detection means that detects the  
20 remaining capacity of a fuel storage means storing the  
fuel for the fuel cell, and

a remaining capacity display means that, installed on  
the connection means, displays the remaining capacity of  
the fuel storage means according to the detection output  
25 from the remaining capacity detection means.

8. A mobile type power supply according to Claim 1,

wherein

the load side of the connection means is comprised of  
a rechargeable battery compatible plug that is  
exchangeable with a rechargeable battery pack to be  
5 attached and detached freely to and from the load.

9. A mobile type power supply according to Claim 1,  
comprising

a fuel cell as the battery, and further comprising  
a remaining capacity detection means that detects the  
10 remaining capacity of a fuel storage means storing the  
fuel for the fuel cell,

a power supply voltage detection means that detects  
the output voltage of the output voltage conversion means  
as the power supply voltage of the load, and

15 a rechargeable battery condition detection terminal  
that outputs the detection output of the power supply  
voltage detection means to the load; wherein

the remaining capacity detection means alters the  
output voltage reference value for the output voltage  
20 conversion means forcibly according to the remaining  
capacity of the fuel storage means.

10. A mobile type power supply according to Claim 1,  
comprising

a fuel cell as the battery; wherein  
25 the load side of the connection means is comprised of  
a rechargeable battery compatible plug that is

exchangeable with a rechargeable battery pack to be attached and detached freely to and from the load, and the rechargeable battery compatible plug is provided with

5 a switch that constitutes an element of the connection condition detection means and turns on/off the fuel cell.

11. A mobile type power supply according to Claim 1, wherein

10 the load side of the connection means is comprised of a rechargeable battery compatible plug that is exchangeable with a rechargeable battery pack to be attached and detached freely to and from the load, and the rechargeable battery compatible plug is provided  
15 inside with

a rechargeable battery that is connected to the power supply terminal of the load and to the output of the output voltage conversion means.

12. A mobile type power supply according to Claim 1, wherein

the output voltage conversion means is a DC-to-DC boost converter.

13. A mobile type power supply according to Claim 1, wherein

25 multiple pin insertion terminals, corresponding to multiple output voltage reference values, are provided on

the battery pack side of the connection means,

multiple connection terminals connectable to the multiple pin insertion terminals are provided on the battery pack, and

5        an output voltage reference value is outputted to the output voltage conversion means of the battery pack as a pin is inserted into a pin insertion terminal, which, among the multiple pin insertion terminals, corresponds to the power supply voltage of the load.

10       14. A mobile type power supply, comprising

an AC adaptor containing an AC-to-DC converter that converts AC power from an AC power supply to DC power according to an output voltage reference value, and

15       a connection means that is connected to both AC adaptor and a load and supplies DC power, outputted by the AC-to-DC converter, to the load;

the connection means comprising an output voltage reference value output means that outputs an output voltage reference value, corresponding to the power supply voltage of the load, to the AC-to-DC converter.

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15. A mobile type power supply according to Claim 14, comprising

a conversion control means that controls the conversion of the AC-to-DC converter, and

25       a connection condition detection means that detects the connection condition between the connection means and

AC adaptor;

the conversion control means stopping the conversion of the AC-to-DC converter when disconnection between the connection means and AC adaptor is detected by the  
5 connection condition detection means.

16. A mobile type power supply according to Claim 15, comprising

a switch that, installed in the connection means, constitutes an element of the connection condition  
10 detection means and turns on/off the AC-to-DC converter.

17. A mobile type power supply according to Claim 15, comprising

an output condition detection means that detects the output condition of the AC-to-DC converter, and  
15 an output condition display means that, installed on the connection means, displays the output condition of the AC-to-DC converter according to the detection output from the output condition detection means.

18. A mobile type power supply according to Claim 14,  
20 wherein

the AC adaptor side of the connection means is made connectable to a battery pack containing

a fuel cell and an output voltage conversion means that converts the output voltage of the fuel cell  
25 according to an output voltage reference value.

19. A carried type electronic equipment, comprising

a mobile type power supply according to Claim 1 and an electronic equipment that receives power from the mobile type power supply and operates as a load to the mobile type power supply.

5           20. A connection device, comprising

a connection means that is connected to both battery pack, containing a battery and an output voltage conversion means which converts the output voltage of the battery according to an output voltage reference value, and a load, and supplies DC power, outputted by the output voltage conversion means, to the load; and

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an output voltage reference value output means that outputs an output voltage reference value, corresponding to the power supply voltage of the load, to the output voltage conversion means.

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